

Conformed mapping of a ...

S/021/61/000/005/003/012  
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$A_3, A_4$ ) some transformation  $f$ , such that  $\Phi(f) < \Phi(I)$  where  $I$  is an identical transformation. The author concentrates on the proof of Theorem 2, which he claims is simpler than that of H. Grötzsch (Ref. 1: Leipz. Ber. 81, 51, 1929). Let  $M_n = M(G_n, A_1, A_2, A_3, A_4)$  where  $G_n$  are sets from Lemma 2, then  $M_n < M_{n+1} \leq \dots \leq \lim_{n \rightarrow \infty} M_n \leq M$ . (7)

Let further,  $F_n(z)$  be the corresponding extremal transformations and  $K_n$  the corresponding extremal regions. Sequence  $F_n(z)$  is uniformly convergence in  $B$  and therefore compact. Let its limits be a regular function  $F_\infty(z)$  then  $F_\infty(z) \in \mathcal{M}(B, A_1, A_2, \dots, A_4)$ . Let  $K_\infty$  is a corresponding region from  $\mathcal{C}(B, A_1, A_2, \dots, A_4)$ ; then  $(F_\infty) = M$ , i.e.  $F_\infty$  and  $K_\infty$  are extremal. Moreover for any  $z \in B$ ,  $\operatorname{Re} F_\infty(z) = \lim_{n \rightarrow \infty} \operatorname{Re} F_n(z) \leq \lim_{n \rightarrow \infty} M_n$  or  $M \leq \lim_{n \rightarrow \infty} M_n$ ; together with (7) it

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it gives  $\lim_{n \rightarrow \infty} M_n = M$ . Assume now that problems  $P(B, A_1, A_2, A_3, A_4)$  has some other extremal solution  $F(z), K$ ; then  $\Phi(F_\infty) = \Phi(F) = M$ . Since  $K_\infty$  and  $K$  are different, it is necessary that some vertical interval  $d_\infty \subset K_\infty$  should pass by transformation  $FF_\infty^{-1}(w_\infty)$  into a curve  $d \subset k$ , which is different from the vertical slit. Let  $\gamma_\infty$  be the image of  $d_\infty$  in the transformation  $F_\infty^{-1}(w_\infty)$ . Let  $B^*$  be the region obtained from  $B$  by adding the slit along  $\gamma$  - it is transformed by  $F_\infty(z)$  into a region  $k_\infty^*$ , obtained from  $K_\infty$  by adding a slit along  $d_\infty$  using transformation  $(F)_z$ ,  $b^*$  passes into a region  $k^*$  obtained from  $k$  by adding a slit along  $d$ .  $M^* = M(B^*, A_1, A_2, A_3, A_4)$  then evidently  $M^* < M$  (11). There are 4 non-Soviet-bloc references. The references to the English-language publications read as follows: J.A. Jenkins, Trans. Amer. Math. Soc., 67, 327, 1949; J.A.

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Jenkins, Ann. Math. 65, 184, 1957.

ASSOCIATION: Kyivsk'kyi politekhnichnyy instytut (Kiyev Politechnic Institute)

PRESENTED: B.V. Gnyedenko, Member of AS UkrSSR

SUBMITTED: November 12, 1960

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S/021/61/000/008/005/011  
D210/D303

AUTHOR: Tamrazov, P.M.

TITLE: Continuity of conformal representation of a domain  
on a rectangle with rectilinear sections

PERIODICAL: Akademiya nauk Ukrayins'koyi RSR. Dopovidi, no. 8,  
1961, 1004-1006

TEXT: When speaking of the problem  $P(B, A_1, A_2, A_3, A_4)$ , the extremum representation  $F(B, A_1, A_2, A_3, A_4)$  and the functional  $M(B, A_1, A_2, A_3, A_4)$  it is always understood that the problem  $P(B, A_1, A_2, A_3, A_4)$  is not meaningless for the given  $B, A_1, A_2, A_3, A_4$ ; Theorem 1 states: A vertical straight line which cuts the extremum domain divides it into two domains congruent to the extremum domains (for corresponding problems). The proof is complicated and is not given in the article.  $B$  is then assumed a domain of any connection with marked non-degenerate boundary continuum  $\Gamma$ . If

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different boundary elements  $A_1, A_2, \dots$  are situated on  $\Gamma$  in the above mentioned order it will be written  $A_i < A_{i+1}$  ( $i=1, 2, \dots$ ). Two lemmas are then established, based on the properties of conformal representation and on Theorem 1. From the lemmas follows Theorem 2. If  $A_1, A_2, A_4$  do not vary and  $A_3$  moves along  $\Gamma$  in any direction, the functional  $M(B, A_1, A_2, A_3, A_4)$  changes continuously and strictly monotonically. If  $A_3$  moves in the positive direction  $M$  decreases and if  $A_3$  moves in the negative direction  $M$  increases. A third lemma is then needed: Let  $f(x)$  be a real function given in a closed  $n$ -dimensional hyperparallelepipedon  $T: x = (x_1, \dots, x_n)$ ,  $a_i \leq x_i \leq b_i$  ( $i=1, \dots, n$ ). If  $f(x)$  is a  $T$  continuous with respect to  $x_i$ ,  $i=1, \dots, n$  and monotonic with respect to  $x_1 = 1, \dots, n-1$  it is continuous in  $T$  with respect to  $x$ . The proof of L.3 is elementary. If one assumes monotony of  $f(x)$  with respect to  $x_1, \dots, x_{n-2}$  only,

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the lemma is not generally valid, which is shown by the example

$$f(x) = \begin{cases} \sum_{i=1}^{n-2} x_i + \frac{x_{n-1}x_n}{x_{n-1}^2 + x_n^2}, & \text{if } |x_{n-1}| + |x_n| > 0 \\ \sum_{i=1}^{n-2} x_i, & \text{if } x_{n-1} = x_n = 0 \end{cases}$$

This function is discontinuous at  $x_{n-1} = x_n = 0$ . Let the values of a parameter  $t$  be so chosen that the position of the boundary element on  $\Gamma$  is a continuous and strictly monotonic function of  $t$ . Let the boundary elements  $A_1, A_2, A_3, A_4$  move along  $\Gamma$  independently, it

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being  $A_i \rightarrow A_i^0$ ,  $i = 1, 2, 3, 4$ ,  $A_1^0 < A_2^0 < A_3^0 < A_4^0$ . Then  $M(B, A_1, A_2, A_3, A_4)$  is a continuous and monotonic function with respect to all four parameters determining the position of  $A_1, A_2, A_3, A_4$  on  $\Gamma$  and, therefore, the conditions of the third lemma are satisfied here. Theorem 3 then follows: If  $A_i \rightarrow A_i^0$ ,  $i = 1, 2, 3, 4$ , then  $M(B, A_1, A_2, A_3, A_4) \rightarrow M(B, A_1^0, A_2^0, A_3^0, A_4^0)$ , i.e. the functional  $M(B, A_1, A_2, A_3, A_4)$  is a continuous function of the position of boundary elements  $A_1, A_2, A_3, A_4$  on  $\Gamma$ .

If one chooses a sequence of groups of 4 boundary elements  $A_1^n, A_2^n, A_3^n, A_4^n$ ,  $n = 1, 2, \dots$ ,  $A_i^n \rightarrow A_i^0$ ,  $i = 1, 2, 3, 4$ ; the sequence of extremum representations  $\varphi_n(z) = F(B, A_1^n, A_2^n, A_3^n, A_4^n)$  being compact and the sequence  $\varphi_{n_k}(z)$  convergent, it can be proved that the function

$$\varphi(z) = \lim_{k \rightarrow \infty} \varphi_{n_k}(z)$$

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belongs to the class  $M(B, A_1^0, A_2^0, A_3^0, A_4^0)$ . Besides, taking into account Theorem 3 and the fact that for any  $z \in B$  one has

$$\begin{aligned} \operatorname{Re} \varphi(z) &= \lim_{k \rightarrow \infty} \operatorname{Re} \varphi_{n_k}(z) \leq \lim_{k \rightarrow \infty} M(B, A_1^{n_k}, A_2^{n_k}, A_3^{n_k}, A_4^{n_k}) = \\ &= M(B, A_1^0, A_2^0, A_3^0, A_4^0) \end{aligned}$$

it emerges that  $\varphi(z) = F(B, A_1^0, A_2^0, A_3^0, A_4^0)$ . Since this is true for any sub-sequence of functions  $\varphi_{n_k}(z)$  it is easy to prove Theorem 4: If  $A_i \rightarrow A_i^0$ ,  $i = 1, 2, 3, 4$ , then  $F(B, A_1, A_2, A_3, A_4) \rightarrow F(B, A_1^0, A_2^0, A_3^0, A_4^0)$  uniformly within  $B$ . In other words, the extremum representation of the domain  $B$  depends continuously on the position of marked boundary elements  $A_1, A_2, A_3, A_4$  on  $\Gamma$ . There is 1 Soviet-bloc reference.

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ASSOCIATION: Kyivsk'kyi politekhnichnyi instytut (Kyiv Poly-  
technic Institute)

PRESENTED: by Academician AS UkrSSR B.V. Gnyedenko

SUBMITTED: October 3, 1960

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S/021/62/000/003/003/010  
D251/D302

AUTHOR: Tamrazov, P.M.

TITLE: Relative distortion of the boundary in univalent conformal mapping of a doubly-connected region

PERIODICAL: Akademiya nauk Ukrayins'koyi RSR. Dopovidi, no. 3, 1962, 338 - 340

TEXT: The author investigates the relative distortion of the inner boundary of the image of a doubly connected region  $G$  in univalent conformal mapping within a unit circle  $|w| < 1$ . If  $\mathcal{G}$  is the set of such mappings, and  $f \in \mathcal{G}$ , then for a finite point  $a = re^{i\alpha}$  are defined

$$P_{r\alpha}(f) = 1 - |a| + \sup |a - w|, \quad (4)$$

and

$$Q_{\alpha r}(f) = 1 - |a| + \inf |a - w|. \quad (5)$$

Defining  $\mathcal{G}_{r\alpha}$  as the set of transformations  $f \in \mathcal{G}$  for which  $P_{r\alpha}(f) = c$ , and  $\mathcal{B}_{\alpha}$  as the set of transformations in  $\mathcal{G}$  which trans-  
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form  $G$  into a region bounded by the unit circle and a non-Euclidean straight line,  $\mathcal{B}_{ac}$  is then defined by  $\mathcal{B}_\alpha \cap \mathcal{G}_{rac}$ . Then, for all  $f \in \mathcal{B}_{ac}$ ,  $Q_r(f)$  yields a unique value independent of  $\alpha$ , which is denoted by  $b(c)$ . Theorem 1: In  $\mathcal{G}_{rac}$  the relationship

$$Q_{ra}(f) \geq b(c) \quad (9)$$

is true, and the equality holds only for  $f \in \mathcal{B}_{ac}$ . Theorem 2: For all real  $\alpha$  and  $r$  ( $1 \leq r \leq \infty$ ) in  $\mathcal{G}$  the relationship

$$\frac{P_{ra}(f)}{Q_{ra}(f)} < \frac{c_0^2}{(2 - c_0)^2} - \frac{2(c_0 - 1)}{(2 - c_0)^2} P_{ra}(f) \quad (17)$$

is true and the equality holds if and only if  $f \in \mathcal{B}_\alpha$ . This ratio characterizes the relative distortion, hence (17) gives an exact upper estimate for the relative distortion. The least upper bound of the ratio is shown to be finite and dependent on the modulus of the region  $G$ .

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Relative distortion of the ...

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D251/D302

ASSOCIATION: Kyiv's'kyy politekhnichnyy instytut (Kyiv Polytechnical Institute)

PRESENTED: by Yu.O. Mytropol's'kyy, Academician of the AS UkrRSR

SUBMITTED: June 24, 1961

Card 3/3

S/021/62/000/005/001/009  
D407/D301

AUTHOR: Tamrazov, P.M.

TITLE: On the theory of univalent conformal mappings of doubly-connected regions

PERIODICAL: Akademiya nauk UkrRSR. Dopovidi, no. 5, 1962, 563-565

TEXT: Three theorems are proved on the conformal mapping of doubly-connected regions. Let  $f(z)$  be a function, univalent in a region whose contour contains the continuum  $\Gamma$ . One sets: ✓

$$p(\bar{f}) = \sup w/, \quad q(\bar{f}) = \inf w/(w \in f(\Gamma)). \quad (1)$$

H-type regions are defined as doubly-connected regions which contain the origin of coordinates and are bounded by the circle  $C_1: |z| = 1$

and by the radial section of  $\Gamma$ . The following three classes of univalent conformal mappings  $f(z)$  of an H-type region are considered:  $T_1$  - the mappings of  $C_1$  onto the external contour of the image;  $T_2$  - the mappings which satisfy the condition  $|f'(0)| > 1$ ;  $T_3$  - the mapp-

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ings, for which the image of  $C_1$  lies in  $|w| \geq 1$ . Theorem 1: The problems of maximization of  $p(f)$  in  $T_1$ , and of minimization of  $q(f)$  in  $T_2$  and  $T_3$ , are solved by means of the functions  $f(z) = cz$ ,  $|c| = 1$ , and only by them. Theorem 1 can be extended to the general case of conformal mappings of doubly-connected regions. The proof to theorem 1 is based on an earlier work by the author and on Grötzsch's theorem (Ref. 2: Leipz. Ber., 81, 38, 1929). Theorems 2 and 3 give the upper bounds of the functionals  $d(f)$  and  $P(f)$  which represent the distortion of the contour of the doubly-connected region. Thereby the upper bound  $N$  is finite and depends on  $R$  only, ( $0 < R < 1$ ).

ASSOCIATION: Kyivskiy politekhnichnyy instytut (Kyiv Polytechnical Institute)

PRESENTED: by Academician Yu.O. Mytropols'kyi of the AS UkrRSR

SUBMITTED: June 28, 1961

Card 2/2

S/021/62/000/009/002/008  
D234/D308

AUTHOR: Tamrazov, P.M.

TITLE: A univalent conformal representation of doubly  
connected regionsPERIODICAL: Akademiya nauk Ukrayins'koyi RSR. Dopovidi, no. 9,  
1962, 1142 - 1145

TEXT: The author considers a set of doubly connected regions  $D$  containing the point  $z = 0$  and having the unit circle  $C$  as a boundary component, the epicenter of  $E / O$ ,  $C, D /$  being the point  $z = 1, w = F(z)$  is a univalent conformal representation of  $D$  on a unit circle with a cut along the section of positive ( $\arg w = 0$ ) radius, which leaves the point  $z = 0$  and the component  $C$  unchanged. Taking  $z$  on the internal boundary of  $D$ , the author defines

$$p = \sup |z|; q = \inf |z|; p_0 = \sup |F(z)|; q_0 = \inf |F(z)|;$$

$$P = \sup |1 - z| \quad (1)$$

and denotes by  $R$  the reciprocal value of the Rieman modulus of  $D$ ,  
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$\varphi(\alpha)$  denotes  $\mu(\alpha)$ , if  $\alpha$  is between 0 and  $\pi/4$ , or  $\nu(\alpha)$  if  $\alpha$  is between  $\pi/4$  and  $\pi$  where

$$\mu(\alpha) = \frac{1}{2} (\sqrt{\sin^2 \alpha + 4} - \sin \alpha); \quad \nu(\alpha) = \frac{1}{2} \sec \frac{\pi - \alpha}{3}. \quad (6)$$

The author establishes a lemma and seven theorems, among which are the following: for any region D as above and any point  $a \in K - D$  (K denoting the circle  $|z| < 1$ )  $q_0 < \varphi(\arg a)$ ; if  $q_0 \geq 1/2$ , then  $|\arg a| < \varphi^{-1}(q_0)$ ; for any D as above and any point  $a \in K - D$

$$\frac{|\arg a|}{1 - p_0} < \pi [2 + 3N_1(R)] \quad (27)$$

the expression  $N_1$  being given by the formula (19) of a previous paper by the author (DAN UkrSSR, 338, 1962).

ASSOCIATION: Kyivskyy politekhnichnyy instytut (Kiev Polytechnic Institute)

PRESENTED: by Academician Yu.O. Mytropol's'kyy, AS UkrSSR

SUBMITTED: October 24, 1961

Card 2/2



TAMRAZOV, P.M.

Univalent conformal mapping of doubly connected regions. Dop.  
AN URSS no.9:1142-1145 '62. (MIRA 18:4)

1. Kiyevskiy politekhnicheskij institut.

TAMRAZOV, P.M.

Some canonical conformal mappings for arbitrarily connected domains  
with cuts. Vop. mat. fiz. i teor. funk. no.1:154-167 '64.  
(MIRA 18:2)

TAMRAZOV, P.M. (Kiyev)

Some extremum problems in the theory of one-sheeted conformal mappings. Mat. sbor. 67 no.3:329-337 J1 '65. (MIRA 18:9)

TAMRAZOV, P.M.

Conformal-metrical theory of doubly connected regions and a  
generalization of Blaschke's product. Dokl. AN SSSR 161 no.2:  
308-311 Mr '65. (MIRA 18:4)

1. October 10, 1964.

TAMRAZOV, P.M. (Kiyev)

Theorems for line overlapping in conformal mapping. Mat. sbor. 66  
no.4:502-524 Ap. '65. (MIRA 18:6)

L 07412-67 EWT(d) IJP(c)

ACC NR: AP6032846

SOURCE CODE: UR/0020/66/170/003/0530/0532

AUTHOR: Tamrazov, P. M.22  
BORG: Mathematics Institute of the Academy of Sciences UkrSSR (Institut matematiki Akademii nauk UkrSSR)TITLE: Some extremal problems in the <sup>6</sup>conformal mapping of doubly and multiply connected regions

SOURCE: AN SSSR. Doklady, v. 170, no. 3, 1966, 530-532

TOPIC TAGS: conformal mapping, mathematic analysis

ABSTRACT: Let there be a fixed doubly-connected region  $D$  containing the point  $z=0$  and bounded by the unit circle  $C_1$  and a radial section  $\Gamma$  terminating at points  $z=q_0$  and  $z=p_0$  ( $0 < q_0 < p_0 < 1$ ).  $J$  is a class of one-sheeted conformal mappings of  $D$  onto the unit circle carrying  $z=0$  into  $w=0$  and  $C_1$  into the outer boundary of the image. Let  $c > 0$  and  $J_c$  denote the subclass of  $J$  consisting of mappings  $f(z)$  satisfying the condition  $|f'(0)| = c$ .  $f_0(z)$  is a mapping from  $J$  carrying  $C_1$  into itself and  $\Gamma$  into the arc  $\Gamma_0$  with center at  $w=0$ . A study is made of  $\max p(f)$  and  $\min q(f)$  in classes of  $J_c$  for different values of  $c$ . Theorems are stated as follows: 1) the extrema in  $J_1$  are solved by the functions  $f(z) \equiv e^{i\theta z}$ , where  $\theta$  is real, and only by them; for  $c \in (0, 1)$  in class  $J_c$  the solution is in functions  $f(z) \equiv e^{i\theta} \mu_c(-z)$  for the maximum and

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$f(z) \equiv e^{i\theta} \mu(z)$  for the minimum, and only these functions. Several existence theorems are also stated. The extension to multiply connected regions is indicated. Presented by Academician V. I. Smirnov on 2 January 1966. Orig. art. has: 4 formulas. O

SUB CODE: 12/ SUBM DATE: 28Dec65/ ORIG REF: 002/ OTH REF: 003

Card 2/2 *fla*

KUTSYN, P.V.; TAMRAZOV, R.A.; GAZARYAN, G.S.

Structural defects of braking devices of drilling draw works.  
Bezop.truda v prom. 9 no.4:19-21 Ap '65.

(MIRA 18:5)



TAMRAZIAN, G. P.

Stratigraphic Extent of the Productive Stratum of Apsheron Oblast  
Dokl. AN Azerb. SSR, 9, No 6, 1953, 337-341

The author introduces a proposition concerning the presence of a long (80,000-100,000 years) discontinuity in the sedimentary accumulation between the sub-Kirmaka strata and the "discontinuity" strata of the Middle Pliocene productive series. The author proposes the possibility of the presence of petroleum in the rocks of the "Nargenskiy" horizon on the analogy with the deposits of the sub-Kirmaka clay stratum. (RZhGeol, No 1, 1954)

SO: W-31128, 11 Jan 55

TAMRAZIAN, G. P., and AGALAROV, M. S.

Problem of the Nature of the Waters of the Maikop Strata in the Caspian Oil-Bearing Region (resume in Azerbaydzhani) Dokl. AN Azerb. SSR, 9, No 9, 1953, 513-515

Brief hydrogeological and hydrochemical characteristics are given of the Caspian petroleum-bearing region, in northeast Azerbaydzhan. The waters of the third horizon of the Maikop strata are sulfateless and alkaline with a salinity of 2.5-4.0 Be. Mineralization of the waters increases during the process of exploitation. The movement of the water profiles is directed upward along the rise of the layers; the front of the moving waters is very tortuous. It has been established that the general mineralization of the waters increases in the southeast direction and Cl, Ca, Mg ions increase and HCO<sub>3</sub> decrease. (RZhGeol, No 1, 1954)

SO: W-31128, 11 Jan 55

TAMRAZYAN, G. P.

"Problem of the Variation in the Chemical Composition of the Waters of the Productive Stratum in the Apsheron Petroleum-Bearing Region",  
Izv. AN Az SSR, No 1, 21-34, 1954 (Azerbaydzhani resume).

The author discusses and illustrates by maps the distribution and variation, in the territory of the Apsheron Peninsula and nearby lying islands of the Apsheron archipelago, of the general mineralization, primary alkalinity, and content of sulfate anions in the waters of the fifth horizon of the Balakhan series, upper Kirmaka sandy formation, and the Lower Kirmaka formation of the productive layer. (RZhGeol, No 5, 1954). SO: Sum No. 443, 5 Apr. 55

*TAMBAZYAN, G. P.*

**MEKHTIYEV, Sh. F.; DIGUROVA, T. M.; TAMBAZYAN, G. P.**

On the regularity of distribution of bitumens in the lower formation  
of the productive stratum in Apsheron Province. Izv. AN Azerb. SSR  
no. 9:23-32 S'54. (MLRA 8:11)  
(Apsheron Peninsula--Petroleum geology)

TAMRAZYAN, G. P.

TAMRAZYAN, G.P.

Modifications in the chemical composition of water in the Maikop  
Series on the Caucasian border. Dokl. AN SSSR 9 no.6:1229-1232  
Je '54. (MLRA 7:8)

1. Institut geologii im. I.M.Gubkina Akademii nauk Azerb.SSR.  
Predstavleno akademikom N.S.Shatskin.  
(Caucasus--Water--Analysis)  
(Water--Analysis--Caucasus)

TAMRAZYAN, G. P.

"Salinity of the Waters from the Mud Volcanoes of Azerbaydzhan"  
Dokl. AN Az. SSR, 1954, 10, No 2, 107-111 (Azerbaydzhani resume)

The waters from the mud volcanoes of Azerbaydzhan are characterized by weak salinity, which fluctuates from 0.2 to 6°. These fluctuations are characterized by definite regularities that depend upon peculiarities of stratigraphic complex and upon tectonic manifestations. The salinity increases from north to south. Increased salinity of waters of mud-vulcanic islands of Baku archipelago indicates large-scale disjunctive dislocations of large amplitude. (RZhGeol, No 3, 1954)

SO: W-31187, 8 Mar 55

Tamrazyan, G. P.

✓ Distribution of chemical composition of waters in Malkop formation in Azerbaidzhan. M. S. Agalarov and G. P. Tamrazyan. *Doklady Akad. Nauk Azerbaidzhan S.S.R.* 10, No. 5, 821-5(1954)(in Russian; Azerbaidzhan summary).—The waters in the above-indicated formation are usually low in sulfates, particularly in the near-Caspian area; in the Kirovabad area the sulfates run about 0.1-1.3 meq. The waters also contain appreciable amts. of ions of naphthenic acids (0.1-0.3 meq.). The near-Caspian region is relatively rich in alk. earths, other areas are relatively low in Ca and related metals. Cl and HCO<sub>3</sub> ions are max. in the near-Caspian area as well. The general compn. of the waters approaches that of Dagestan waters.

G. M. Kosolapoff.

TAMRAZIAN, G.P.

TAMRAZIAN, G.P.

Geological revolutions and the cosmic life of the earth. Dokl.  
AN Azerb. SSR 10 no.6:433-438 '54. (MLRA 8:10)

1. Institut geologii im. akad. I.M.Gubkina Akademii Azerbaydzhansko-  
skoy SSR. Predstavleno deystvitel'nym chlenom Akademii nauk Azer-  
baydzhanskoy SSR ShA.Asisbekovym.  
(Earth--Surface) (Solar system)



*TAMRAZIAN G.P.*  
GORIN, V.A.; TAMRAZIAN, G.P.

On the genesis of diapir structures of southeastern Caucasus.  
Dokl. Azerb. SSR 10 no.8:557-564 '54. (MLRA 8:10)

1. Institut geologii im. Akademii I.M.Gubkina AN Azerbaydzhansko-  
skoy SSR Predstavleno deystvitel'nym chlenom Akademii nauk Azer-  
baydzhanskoy SSR Sh.A.Azizbekovym.  
(Caucasus--Geology, Structural)

TAMRAZYAN, G.P.

TAMRAZYAN, G.P.

The hypothetical Middle Caspian dryland as an originating province.  
Dokl. AN Azerb. SSR 10 no.12:849-856 '54. (MLRA 8:10)

1. Institut geologii im. akademika I.M.Gubkina Akademii nauk Azerbaydzhanskoy SSR. Predstavleno deystvitel'nym chlenom Akademii nauk Azerbaydzhanskoy SSR M.M.Aliyevym.  
(Apsheron Peninsula--Geology)

TAMRAZYAN, G. P.

"Certain Regularities and Laws in the Variation of the Chemical Composition of Waters of Mud Volcanoes in Azerbaydzhan"  
Trudy In-ta geol. AN AzSSR, 15, 1954, 59-72 (Azerbaydzhani resumi)

The author expounds the results of a study of the geographical distribution of chlorine, carbon dioxide, calcite, magnesium and primary alkalinity in the waters of the mud volcanoes of Azerbaydzhan. The contents of these are given. (RZhGeol, No 6, 1955)

SO: Sum-No 787, 12 Jan 56

TAMRAZYAN, G. P.

USSR/Geology - Hydrogeology

Card : 1/1

Authors : Tamrazyan, G. P.

Title : Laws governing the change in chemical composition of waters of the Maykop formation in the Caucasus

Periodical : Dokl. AN SSSR, 96, Ed. 6, 1229 - 1232, June 1954

Abstract : The importance of the Maykop formation increases because it is generally considered as one of the basic petroleum bearing formations of the Caucasus. The waters occurring below the petroleum layer are usually sedimentation waters accumulated together with precipitations. The laws governing the change in chemical and mineral composition of Maykop waters are discussed. Two references. Table.

Institution : Acad. of Sc. Azerb-SSR, The I. M. Gubkin Institute of Geology

Presented by : Academician N. S. Shatskiy, April 6, 1954

TAMRAZYAN, G. P.

USSR/ Geology - Petroleum

Card 1/1 Pub. 22 - 28/40

Authors : Tamrazyan, G. P.

Title : ~~Periodicity in the change in quality of petroleum in deposits of separate tectonic stages of development of the earth.~~

Periodical : Dok. AN SSSR 99/3, 441-444, Nov 21, 1954

Abstract : The changes in the most important qualitative index in the composition of petroleum, namely, its specific weight and the changes in many other qualitative indexes of petroleum, which are connected with the change of its specific weight, are explained. The reasons for changes in specific weight of petroleum (heavy petroleums change into light ones and later into gases) are listed. The periodicity in the change of petroleum quality consists in the periodicity of the change in its specific weight as well as in the change in the paraffin and sulfur content of the latter. This periodicity is closely connected with the rhythmical development of the earths' crust. Fifteen references: 4-USA and 11-USSR (1947-1954). Tables.

Institution : Acad. of sc. Azerb-SSR, The I. M. Gubkin Institute of Geology

Presented by : Academician N. M. Strakhov, September 3, 1954

TAMRAZIAN, G.P.

TAMRAZIAN, G.P.

On the problem of shifting petroleum deposits in the Apsheron  
petroliferous region. Izv. AN Azerb. SSR no.2:75-93 P'55.  
(MLRA 8:11)

(Apsheron Peninsula--Petroleum geology)

FAMRAZ YAN G.P.

Periodicity of presence of  
different species of G. P. Famrazyan  
in the USSR and the number of  
times they were observed in the USSR

41

11

TAMRAZIAN, G.P.

✓ Chemical characteristics of waters from the lower strata of the Surakhn suite of productive beds of the Baku "half-ring." G. P. Tamrazian. *Doklady Akad. Nauk Azerbaidzhan. S.S.R.* 11, No. 8, 533-8 (1955) (in Russian).—The total mineralization ranges from 310 to 505 meq. Na + K, Cl, and total mineralization are higher and HCO<sub>3</sub>, SO<sub>4</sub>, naphthenic acid, and perhaps Ca are lower in the sandier sections relative to the more clayey sections. The compns. are explained as a result of interaction of groundwater with the feldspar of the clayey sections and of adsorption of ions, especially on clays. *chem*



TAMRAZIAN, G.P.

Chemical characteristics of waters of the Surakhany series of productive sands on the Apsheron Peninsula. Dokl. AN Azerb. SSR 11 no.11:787-791 '55. (MLRA 9:5)

1. Institut geologii imeni I.M. Gubkina AN Azerbaydzhanskoy SSR. Predstavleno deystvitel'nyy chlenom AN Azerbaydzhanskoy SSR Sh.A. Azizbekovym.

(Apsheron Peninsula--Water, Underground)

TAMRAZIAN, G.P. Kandidat geologo-mineralogicheskikh nauk

Underground waters in the oil fields of the Apsheron peninsula  
Priroda 44 no.5:88-90 My '55. (MIRA 8:7)

1. Institut geologii Akademii nauk Azerbaydzhanskoy SSR  
(Apsheron Peninsula--Oil fields) (Water, Underground)

TAMRAZYAN, G.P.

TAMRAZYAN, G.P.

Relationship between the gas and oil-bearing capacity and the lithology of reservoir rocks. Dokl. AN SSSR 102 no.6:1193-1196 Je'55. (MIRA 8:10)

1. Institut geologii imeni I.M.Gubkina Akademii nauk Azerb.SSR.  
Predstavleno akademikom N.M.Strakhovym  
(Petroleum geology) (Gas, Natural--Geology)

15-57-4-5122

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 4,  
pp 149-150 (USSR)

AUTHOR: Tamrazyan, G. P.

TITLE: Relation of Natural Gas Potential to Lithology of  
the Host Rock, as Exemplified by the Surakhany  
Deposit [О зависимости газонефтеносности от литологии  
vmeshchayushchikh porod (na primere Surakhanskogo  
mestorozhdeniya)]

PERIODICAL: Izv. AN AzSSR, 1956, Nr 1, pp 39-62

ABSTRACT: The quality of petroleum and the ratio of gas to  
petroleum are closely related to the lithology of the  
host rock. An association of light petroleum  
tractions with argillaceous series and horizons, and  
of heavy petroleums with sands and siltstones, is  
observed in connection with the general increase of  
petroleum density with stratigraphic depth. The

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15-57-4-5122

· Relation of Natural Gas Potential (Cont.)

argillaceous portions of the cross section have a greater gas and petroleum content. An association of light bitumens with the finer-grained rocks is similarly observed.

Card 2/2

N. A. Ye.

TAMRAZIAN, G.P.

Features of the distribution of earthquakes in Turkmenistan and some problems in forecasting them. *Izv. AN Turk. SSR* no.5:17-25 '56. (MLBA 9:12)

1. Institut geologii Akademii nauk Azerbaydzhanskoy SSR. (Turkmenistan--Seismology)

TAMRAZIAN, G.P.

Earthquakes in the vicinity of Kazbek and elastic tides. Izv.AN  
SSSR Ser.geofiz.no.7:840-843. J1 '56. (MLRA 9:9)  
(Kazbek--Earthquakes)

TAMUZYAN, C. P.

... ..



*TAMRAZ'YAN, G.P.*

AGALAROV, M.S.; TAMRAZ'YAN, G.P.

Some problems concerning the formation of the composition of salts  
in the Maikop formation waters of Azerbaijan. Uch. zap. AGU no.11:  
17-24 '56. (MLRA 10:4)

(Azerbaijan--Water, Underground) (Salts)

TAMRAZIAN, G.P.

Problem of the Caspian Isthmus. Dokl.AN Azerb.SSR 12 no.3:183-191  
'56. (MLRA 9:8)

1. Institut geologii imeni akademika I.M. Gubkina AN Azerbaydshan-  
skoy SSR. Predstavleno akademikom AN Azerbaydzhanskoy SSR M.M.  
Aliyevym.

(Caspian Sea--Geology)

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 7,  
p 154 (USSR) 15-57-7-9791

AUTHORS: Sultanov, A. D., Tamrazyan, G. P.

TITLE: Lithological and Stratigraphical Basis for Rhythmic  
Formation of Productive Stratum in the Apsheron  
Petroleum Region (O litologo-stratigraphicheskome  
obosnovanii ritmicheskogo stroyeniya produktivnoy  
tolshchi Apsheronskoy neftenosnoy oblasti --In  
Azerbaydzan)

PERIODICAL: Dokl. AN AzSSR, 1956, Vol 12, Nr 9, pp 643-649

ABSTRACT: The author considers the physical aspects of rhythms  
in the productive stratum of Azerbaydzhan.

Card 1/1

**TAMRAZIAN, G.P.**

**Earthquakes of the Crimea and cosmic conditions of the earth.**  
**Geol.zhur. 16 no.3:66-70 '56. (MLRA 9:11)**  
**(Crimea--Earthquakes)**

TAMRAZIAN, G.P.

MEKHTIYEV, Sh.F.; TAMRAZIAN, G.P.

Structure and development of the earth's crust. Trudy Inst. geol. AN  
Azerb. SSR 17:90-102 '56. (MIRA 10:4)  
(Geology)

TAMRAZIAN, G.P.

The central Caspian arid lands. *Biul.MOIP.Otd.geol.31 no.1:*  
33-50 Ja-F '56. (MIRA 9:7)  
(Caspian Sea region--Paleogeography)

**TAMRAZIAN, G.P.**

**Hydrochemical factors of oil-bearing potentialities of the Maikop series in Azerbaijan. Azerb.neft.khoz. 35 no.9:5-8 S '56.  
(Azerbaijan--Petroleum geology) (MLRA 9:12)**

Diagrams 18/5/75

✓ Power content of the productive station of the Anshoran



TAMRAZIAN, G.P.

On the boron distribution in the productive of the Apsheron  
region [with summary in English]. Geokhimiia no.8:684-695 '57.  
(MIRA 11:2)

1. Institut geologii im. akademika I.M. Gubkina, Baku.  
(Apsheron Peninsula--Boron)

*G.P. Tamrazyan*  
TAMRAZYAN, G.P.

Geotectonic hypothesis. Izv. AN Azerb. SSR no.12:85-115 D '57.  
(Geology) (MIRA 11:2)

TAMRAZYAN, G.P.

AUTHOR: Tamrazyai, G.P.

49-12-9/16

TITLE: Destructive Earthquakes in Transcaucasia and the Phases of the Moon (Razrushitel'nye zemletryaseniya Zakavkaz'ya i fazy luny)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Seriya Geofizicheskaya, 1957, No.12, pp. 1510 - 1511 (USSR)

ABSTRACT: For elucidating the relationship between normal earthquakes and the phases of the moon, the earthquakes of Transcaucasia are analysed, which is one of the seismologically most active regions of the Soviet Union from historical times onwards. Of 11 earthquakes between 1899 and 1950, with intensities exceeding 7 balls, 8 earthquakes took place in zones with a new moon and half-moon and only 3 in the zones of the fourth lunar phase, confirming thereby the existence of an interrelation between the liberation of energy from the depth of the Earth and the cosmic conditions of the Earth. A definite relation was established between the phases of the moon (i.e. mutual positions of the Earth, the moon and the sun) and the occurrence of the most intensive earthquakes in Transcaucasia which, mainly, took place in the Earth's crust.

Card 1/2

There are 1 figure and 3 tables and 4 Slavic references.

**Destructive** Earthquakes in Transcaucasia and the Phases of the Moon. <sup>49-12-9/16</sup>

**SUBMITTED:** November 23, 1956.

**AVAILABLE:** Library of Congress.  
Card 2/2

TAMRAZIAN, G.P.; KAPIJUN, V.B.

Characteristics of the chemical composition and formation of waters in the 8th horizon of Balakhany series in the Apsheron Peninsula pay stratum. Dokl.AN Azerb.SSR 13 no.7:769-774 '57.

(MLRA 10:7)

1. Institut geologii. Predstavleno akademikom AN Azerbaydzhanskoy SSR M.A. Kashkayev.

(Apsheron Peninsula--Water, Underground) (Petroleum geology)

TAMRAZIAN, G.P.

Earthquakes in Tiflis and the cosmic conditions of the earth. Soob.  
AN Gruz. SSR 19 no.2:151-158 Ag '57. (MIRA 11:3)

1. Institut geologii AN AzerSSR, Baku. Predstavleno akademikom A.I.  
Dzhanelidze.

(Tiflis--Earthquakes)

*TAMRAZIAN, G.P.*

KARTSKV, A.A.; TAMRAZIAN, G.P.

Effect of infiltration on the formation of waters in the Apsheron  
oil-producing area. Trudy MNI no.19:186-195 '57. (MIRA 11:1)  
(Apsheron Peninsula--Oil field brines)

49-58-5-11/15

AUTHOR: Tamrazyan, G. P.

TITLE: On the Seismic Activity of the North-West Pacific Ocean.  
(O seysmicheskoy aktivnosti severo-zapadnogo obramleniya  
Tikhogo Okeana)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Seriya Geofizicheskaya,  
1958, Nr 5, pp 664-668 (USSR)

ABSTRACT: The lunar triggering effect on earthquakes in West and North-West Pacific border territories was investigated from the data for depths of the centre extending from 50 to 800 km, collected over the period 1909-1944. An increase in the number of earthquakes due to this effect can be taken as several hundred per cent above the normal. Table 1 shows the frequencies of earthquakes for various periods of the lunar month. It can be seen that when their number, at various depths for the first and last quarter is taken as 100%, it rises to 240%, the mean being 141% per periods of full and new Moon. The effect of lunar triggering action can be more emphasised by arranging the number of earthquakes into the Frequency Spiral (Fig.1). There the darker

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49-58-5-11/15

On the Seismic Activity of the North-West Pacific Ocean.

spirals represent a higher and the light ones the lower seismic activity. The growth of the Moon is marked along the circumference. The radius is divided into the time intervals between earthquakes and the Moon positioning in relation to the perihelion of its orbit. The spiral distribution is summarised in Table 2, where, as can be seen, the number of earthquakes is 2.5 times greater in the darker spiral areas representing the full and new Moon, than in the light ones. This number increases to 5 times for the selected range of depths of 40-80 km (Table 3). Similar observations were made for the Caucasus area, where some 1200 earthquakes were investigated for the period 1917-1950. Their distribution graph (Fig.2) shows again the seismic activity very much increased for the Moon at its perihelion. The importance of the lunar effect can be illustrated by the tidal forces. When the effect of the Sun on tide formation is taken as 100%, an addition of the force exerted by the Moon makes this percentage rise to 452%. A curve of the lunar forces drawn for the period of some years ahead (Fig.3) may be

Card 2/3

49-58-5-11/15

On the Seismic Activity of the North-West Pacific Ocean.

exploited for prognosis of an increase of seismic activities of the Earth. There are 4 tables, 3 figures and 7 references, of which 6 are Soviet and 1 English.

SUBMITTED: November 28, 1956.

1. Earthquakes--Pacific Ocean

Card 3/3

11(0)

SOV/93-58-10-12/19

**AUTHOR:** Ovnatanov, S.T. and Tamrazyan, G.P.

**TITLE:** The Productivity Index for the NKP Formation of the Surakhany Oil-field (O koeffitsiyente nefteizvlecheniya po NKP svite surakhanskogo mestorozhdeniya)

**PERIODICAL:** Neftyanoye khozyaystvo, 1958, Nr 10, pp 54-58 (USSR)

**ABSTRACT:** This is a geological and technological study of the NKP - Nadkirmakinskaya peschanaya svita (Nadkirmakinskaya Sand Formation) of the Surakhany Oilfield on the Apsheron Peninsula. Tectonically the formation represents an anticline (Fig. 1). The Surakhany anticline is separated by one saddle from the Kara-Chukhur anticline in the South and by another saddle from the Ramana sector of the Balakhany-Sabunchi-Ramana anticline in the Northwest. The formation consists of sands (Tables 1-2) and its oil and water output per well varied considerably since 1932 (Table 3). This study will be continued in "Neftyanoye khozyaystvo", 1958, Nr 11. There are 3 tables and 1 figure.

Card 1/1

11(0)

SOV/93-58-11-10/15

AUTHOR: Ovnatanov, S.T. and Tamrazyan, G.P.

TITLE: Productivity Index for the NKP Formation of the Surakhany Oilfield  
(O koeffitsiyente nefteizvlecheniya po NKP svite surakhanskogo mestorozhdeniya)

PERIODICAL: Neftyanoye khozyaystvo, 1958, Nr 11, pp 54-57 (USSR)

ABSTRACT: The first article on the NKP formation of the Surakhany Oilfield was published in "Neftyanoye khozyaystvo," 1948, Nr 10. The present and last article on this subject presents data on the formation's oil recovery from 1932 to 1958. The variations in the annual oil and water recoveries as well as the water factor are depicted in Fig. 2. The output of a stabilized well in the NKP formation was recorded for the years 1939-57 and the data are presented in Fig. 3. The data on the physicogeological conditions of the NKP formation are given in Table 4. The study showed that the current coefficient of oil and gas recovery from the NKP formation is 86-88 per cent and the ultimate coefficient of recovery is 89-91 per cent. It was determined that the coefficient of recovery for formations with similar geological and production characteristics can be increased to 0.9 or higher. There are 2 figures, 1 table, and 1 Soviet reference.

Card 1/1

TAMRAZIAN, G.P.  
TAMRAZIAN, G.P.

Chemical composition of oil field waters in the upper horizons of  
the Sabunchi stage of the Apsheron Peninsula pay stratum. Dokl.  
AN Azerb. SSR 14 no.1:45-49 '58. (MIRA 11:2)

1. Institut geologii AN Azerbaydzhanskoy SSR. Predstavleno akademikom  
AN Azerbaydzhanskoy SSR M.-A. Kashkayev.  
(Apsheron Peninsula--Oil field brines)

OVNATANOV, S.T.; TAMRAZYAN, G.P.

Oil recovery factor of the Supra-Kirnaki sand series in the  
Surakhany field (to be concluded) Neft.khoz. 36 no.10:54-58  
0 '58. (MIRA 11:12)  
(Apsheeron Peninsula--Petroleum engineering)

OVNATANOV, S.T.; TAMRAZIAN, G.P.

Oil recovery factor of the Supra-Kirmaki sand series in the  
Surakhany field (conclusion) Neft,khos. 36 no.11:54-57 N '58.  
(MIRA 11:12)

(Apshehon Peninsula--Petroleum engineering)

OVNATANOV, S.T.; TAMRAZYAN, G.P.

Geological characteristics of Kalinovka structures in the Bina-Gousan trough of the Apsheron Peninsula and some problems relative to oil and gas prospecting in the Kalinovka series. Azerb. neft. khos. 37 no.3:4-9 Apr '58. (MIRA 11:8)

(Apsheron Peninsula--Petroleum geology)  
(Apsheron Peninsula--Gas, Natural--Geology)



**AUTHOR:** Tamrazyan, G. P. 20-118-4-51/61

**TITLE:** On Certain Peculiarities in the Distribution of Mud Volcanoes of East Azerbaydzhan (K voprosu o nekotorykh osobennostyakh raspolozheniya gryazevykh vulkanov Vostochnogo Azerbaydzhana)

**PERIODICAL:** Doklady Akademii Nauk SSSR, 1958, Vol. 118, Nr 4, pp. 807-810 (USSR)

**ABSTRACT:** The mud volcanoes have been studied since approximately one century. Their linear arrangement and immediate relation to faults has been recognized since a long time and was later completely confirmed (reference 7). The author registered more than 220 mud volcanoes in isolines in a map which was divided into districts according to the frequency of their occurrence (figure 1). The mud volcanoes are concentrated here in 4-5 strips (zones). 3 main zones (in the ratio to the flexure systems) of them are longitudinal, one transversal, and one additional longitudinal: 1) Western longitudinal zone. It extends approximately through Shevakha up to Mishovdag where it is divided. One branch (subzone) continues the direction and reaches the Kurinskaya sand bank. The second subzone bends a little southwards and reaches the island of Kurinskiy Kamen'.

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20-118-4-51/61

On Certain Peculiarities in the Distribution of Mud Volcanoes  
of East Azerbaydshan

2) Central longitudinal zone, has a little more North-Western course than the first and is parallel with it. It begins in the North-East of Shemakha and reaches the sand bank of Kornilov-Pavlov. 3) Eastern Longitudinal zone has a more North-Eastern course than the South-Eastern direction of the second, and passes Dshengi and reaches Lokbatan. In the region of the Apsheronkiy archipelago a fourth longitudinal zone is indicated which is the connection between Busevinskaya Volcano and the isles of Neftyanyye Kamni. The transversal mud volcano zone extends from South-West to North-East and passes all longitudinal zones. It passes Kyurovdag and reaches Busevinskaya Volcano the North-East of the Apsheronkiy Peninsula. At the intersections of the longitudinal and the transversal zone lie the greatest and thickest mud volcanoes: Teuregay Great Kyaniadag, Koturdag, Utal'gi and others. The mentioned zones: the Western and the central agree with the known great fault zones (reference 2). Also the transversal zone is bound to a depression fault, Adshimbai-Mardak'anskiy, which can be considered as fossil since it is obscured by a neogene and anthropogene sedimentation. The thick transversal mud volcano zone coincides

Card 2/3

On Certain Peculiarities in the Distribution of Mud Volcanoes 20-118-4,51/61  
of East Azerbaydzhan

with a strip of an abrupt change of direction of the fold structures. In the final result the mentioned mud volcano zones are due to a complicated interaction between the rising Kavkaz and the sinking Caspian Sea and very important for the deciphering of the geological development of the Kavkazsko-Kaspiyskiy region. There are 1 figure and 7 references, 6 of which are Soviet.

PRESENTED: August 2, 1957, by D. V. Nalivkin, Member of the Academy

SUBMITTED: July 28, 1957

AVAILABLE: Library of Congress

Card 3/3

TAMRAZIAN, G.P.

Formation of the earth. Izv. AN Turk. SSR. no.1:22-35 '59.  
(MIRA 12:5)

1. Institut geologii AN Turkmenskoy SSR.  
(Earth)

OVNATANOV, S.T.; TAMRAZYAN, G.P.

Manifestation of a paleodiapir fold in the Kara-Chukhur fold.  
Uch. zap. AGU. Geol.,geog. ser. no.2:117-123 '59. (MIRA 14:6)  
(Kara-Chukhur region--Folds(Geology))

SOV/49-59-4-11/20

AUTHOR: Tamrazyan, G. P.

TITLE: Earthquakes with Medium and Deep Focus in Relation to the Cosmic Conditions of the Earth (Promezhutochnyye i gluboko-fokusnyye zemletryaseniya v svyazi s kosmicheskimi usloviyami zemli)

PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya geofizicheskaya, 1959, Nr 4, pp 598-603 (USSR)

ABSTRACT: The data of the earthquakes with foci of 50-800 km were collected from various sources and from (Ref 2), then analyzed in relation to the cosmic conditions of the Earth. The results as summarized by the author are illustrated in Tables 1 to 3 and repeated graphically in Figs 1 to 3. Fig 1 shows the distribution of earthquakes in relation to the phases of the Moon. Fig 2 shows the number of earthquakes and the depth of focus in relation to the elastic tides on the Earth. Fig 3 gives the number (in per cent) of earthquakes in relation to the cosmic conditions and the dominant directions of the folding systems of the Earth. Table 1 gives the number of earthquakes and their percentage for various seismic regions and for different depths of focus. Table 2 gives the percentage of the earthquakes for different depths of focus in relation to the Moon phases. Table 3 gives the number of earthquakes

Card 1/2

SOV/49-59-4-11/20

Earthquakes with Medium and Deep Focus in Relation to the Cosmic  
Conditions of the Earth

divided into groups (A,  $\zeta$ , B) in relation to the magnitude of the faults (Column 2), in various regions (Column 3), for various Moon phases (Columns 4-6) (Columns 7-10 - giving percentage per unit of time). The author comes to the conclusion that the analysis confirms a theory that the cosmic conditions of the Earth tend to release a proportion of the potential energy at various centres of the Earth (Table 3, Columns 7 and 8) and therefore affecting its seismicity. There are 3 tables, 3 figures and 8 references, of which 7 are Soviet and 1 English.

SUBMITTED: November 23, 1956.

Card 2/2

TAMRAZIAN, G.P.

Varieties in the composition of waters in the Supra-Kirmaki sandstone formation in the Apsheron Peninsula. Izv. AN Azerb. SSR. Ser. geol.-geog. nauk no.5:57-72 '59 (MIRA 13:3)  
(Apsheron Peninsula--Oil field brines)



OVNATANOV, S.T.; TAMRAZYAN, G.P.

Factors determining the formation of oil pools in certain major fields of the eastern Apsheron Peninsula. Sov. geol. 2 no.6:78-90  
Je '59. (MIRA 12:12)

1. Trest "Ordzhonikidzenefit" Ministerstva neftyanoy promyshlennosti Azerb. SSR i Institut geologii Akademii nauk Azerb. SSR.  
(Apsheron Peninsula--Petroleum geology)

TAMRAZIAN, G.P.

Periodical climatic changes and certain paleogeographical problems. Sov.geol. 2 no.7:143-149 JI '59. (MIRA 13:1)

1. Institut geologii AN Azerb.SSR.  
(Climatology)

KASHKAY, M.A.; TAMRAZYAN, G.P.

Transverse dislocations in the Caucasus. Dokl. AN Azerb. SSR 5  
no.5:389-393 '59. (MIRA 12:8)

1. Institut geologii Akademii nauk AzerSSR.  
(Caucasus--Fault (Geology))

SULTANOV, A.D.; TAMRAZIAN, G.P.

Some features of cyclic sediment accumulation during the formation  
of a producing stratum in the Apsheron Peninsula. Dokl. AN Azerb.  
SSR. 15 no.6:503-506 '59. (MIRA 12:9)

1. Institut geologii im. akademika I.M. Gubkina.  
(Apsheron--Petroleum geology)

TAMRAZYAN, G.P.

Baku trench. Dokl. AN Azerb. SSR 15 no.12:1135-1142 '59.  
(MIRA 13:4)

1. Institut geologii AN AzerSSR. Predstavleno akademikom AN  
AzerSSR M.M. Aliyevym.  
(Caspian Sea--Ocean bottom)

OVNATANOV, S.T.; TAMRAZYAN, G.P., starshiy nauchnyy sotrudnik

Wide use of hydrogen sulfide waters from petroleum layers for therapeutic purposes. Vop. kur., fizioter. i lech. fiz. kul't. 24 no. 4:360 J1-Ag '59. (MIRA 13:8)

1. Glavnyy geolog "Ordzhonikidz~~neft~~" Ministerstva neftzanyoy promyshlennosti Azerbaydzhanskoy SSR (for Ovnatanov). 2. Instit geologii im. akad. I.M. Gubkina AN Azerbaydzhanskoy SSR (for tamrazyan)  
(APSHERON PENINSULA—HYDROGEN SULFIDE—THERAPEUTIC USE)

KARAMYAN, A.A.; OBNATANOV, S.T.; TAMRAZYAN, G.P.

Characteristics of petroleum, gas, and water in the Kala series  
of the Gousan field. Azerb.neft.khoz. 37 no.6:7-10 Je '59.  
(MIRA 13:4)

(Apsheron Peninsula--Petroleum geology)

OVNATANOV, S.T.; TAMRAZYAN, G.P.

Characteristics of changes in the thickness of series of the  
producing formation in the Surakhany-Karachukhur-Zykh-Peschanyy  
Island anticlinal zone. Azerb. neft. khoz. 38 no.6:1-4 Je '59.  
(MIRA 12:10)  
(Apsheeron Peninsula--Petroleum geology)



3(0)

SOV/20-124-6-31/55

AUTHOR: Tamrazyan, G. P.

TITLE: On a Peculiarity in the Distribution of Oil and Natural Gas Deposits of the Azerbaydzhan SSR and of Natural Gas Deposits of the RSFSR (Ob odnoy osobennosti raspredeleniya neftegazovykh mestorozhdeniy AzerbSSR i gazovykh mestorozhdeniy RSFSR)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 124, Nr 6, pp 1292 - 1295 (USSR)

ABSTRACT: The most important known oil and gas deposits in the Azerbaydzhan are connected with the Adzhikabul-Mardakyan deep fault. It runs from southwest to northeast for about 150 km through the Lower Kura Plain, Kobystan, the Apsheron Peninsula, and the Apsheron Archipelago (Fig 1). The thickest mud volcano zone is also connected with this fossil deep fault (concealed by Neogene and Quaternary sedimentation (Ref 3). The majority of the deposits mentioned are connected with a band only 20 km wide. 96.7% of the oil has been found here since a century, and 79% of the present known oil resources are also concentrated here. The remaining oil and gas deposits are connected with structures which are usually complicated by

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Deposits of the Azerbaydzhan SSR and of Natural Gas Deposits of the RSFSR

large tectonic faults. The above-mentioned connection of the deposits with the deep fault zone possibly indicates its role in formation of the deposits. As soon as the faults reached the bottom of the earth's crust (Ref 1) the fault mentioned could serve as a strong channel for the rising hydrocarbon gases. These latter then formed gas accumulations in higher lying sections of the earth's crust, or they could have developed into oil under favorable conditions (Ref 2). Lateral migration of the gases mentioned on their way upwards could have also taken place. According to data from 1957 the known gas resources of the RSFSR (about 2/3 of the total resources of the USSR) are concentrated in a relatively narrow band (about 300 km wide and less), which is, however, up to 1600 km long. It runs from the Krasnodar **Zone** towards the northeast over the most significant gas occurrences of the regions: Stalingrad, Saratov, Kuybyshev, and Orenburg, as well as the Tatar and Bashkir ASSR (Fig 2). Many large gas occurrences lie almost on a straight line. Between these are found a large number of smaller gas occurrences. There

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Deposits of the Azerbaydzhan SSR and of Natural Gas Deposits of the USSR

are 1 table and 3 Soviet references.

PRESENTED: June 28, 1958, by D. V. Nalivkin, Academician

SUBMITTED: June 26, 1958

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3 (5)

AUTHOR:

Tamrazyan, G. P.

SOV/20-126-4-43/62

TITLE:

On Some Rules Governing the Changes of the Gas Composition of the Petroleum-Gas Deposits of the Apsheronkiy Peninsula (O nekotorykh zakonomernostyakh izmeneniya sostava gazov nefte-gazovykh mestorozhdeniy Apsheronского poluostrova)

PERIODICAL:

Doklady Akademii nauk SSSR, 1959, Vol 126, Nr 4, pp 845 - 848 (USSR)

ABSTRACT:

The composition mentioned in the title is much less investigated than that of the petroleum of this region. The rapidly increasing importance of the mentioned gas as raw material makes it necessary to investigate the rules governing the material composition of the gases mentioned in the title. The present paper deals with the distribution of the natural gas composition in connection with the stratigraphic depth and with the lithology. Furthermore, the interrelation between such changes of petroleum and the accompanying gases is discussed. Figures 1 and 2 show the mentioned change in the productive mass of the two most important deposits of the peninsula: a) Balakhany-Sabunchi-Ramaninskoye and b) Bibieybatskoye. Altogether 210 samples of accompanying natural gases were in-

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vestigated in the laboratories at the MNP (Ministerstvo narodnogo prosveshcheniya (Azerbaydzhan SSR) = Ministry of Public Education Azerbaydzhan SSR). It may be seen from the figures that the methane content increases with the stratigraphic depth. The content of ethane, propane, butane, and of the heavy hydrocarbons on the whole decreases with the mentioned depth (Fig 3). Parallel with this decrease their content increases in those suites which contain maximum amounts of loam, or which are mainly sandy-aleurithically-loamy suites (Kirmakinskaya and Sabunchinskaya suites). The sandy intervals of the productive mass contain the minimum amount of hydrocarbons. The CO<sub>2</sub> content decreases with the mentioned depth; this also holds for the specific weight of the accompanying gases and the petroleum content. Analogous observations concerning the subject mentioned in the title were made also for other petroleum fields. Exceptions are rare. The found rules are above all brought in connection with the composition of petroleum: on the peninsula the methane content increases and the content of heavy hydrocarbons

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decreases with increasing specific weight of the petroleum (Figs 1,2). This parallelism indicates the natural relation between petroleum and natural gas. The changes in the composition of the natural gas are subject to planetary rules - as is also the case with petroleum (Refs 11,13,15). The increasing methane content and the decreasing content of heavy hydrocarbons are connected with the increase in weight of the petroleum in the course of the Algonkian period (from the Lower Paleozoic to the Cenozoic). From this it may be concluded that the manifold bitumina (solid, dispersed, petroleum and natural gas) and their material composition are in close and certain connection with the lithology of the containing deposits. There are 3 figures and 20 references, 16 of which are Soviet.

ASSOCIATION: Institut geologii im. I. M. Gubkina Akademii nauk AzerbSSR (Institute of Geology imeni I. M. Gubkin of the Academy of Sciences of the Azerbaydzhan SSR)

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SUBMITTED: February 21, 1959

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Stratigraphic subdivision of the productive series in the Apsheron  
oil-bearing region. Izv. AN Azerb. SSR. Ser. geol.-geog. nauk no. 3:  
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(Aspheron Peninsula—Geology, Stratigraphic)

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Thermal conditions in the Surakhany-Karachukhur-Zykh-Peschanyi anticlinal zone (Apsheeron Peninsula) [with summary in English].  
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